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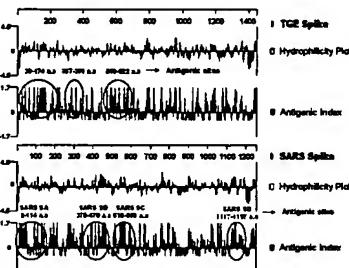
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(54) CELL SURFACE EXPRESSION VECTOR OF SARS VIRUS ANTIGEN AND MICROORGANISM TRANSFORMED THEREBY USEFUL IN PRODUCTION OF VACCINE FOR PREVENTION OR TREATMENT OF SARS

(57) Abstract:

PURPOSE: A cell surface expression vector of SARS virus antigen and a microorganism transformed thereby are provided. The transformed microorganism and antigen protein produced therefrom are useful in the production of a vaccine for the prevention or treatment of SARS.



CONSTITUTION: The cell surface expression vector of SARS virus antigen comprises one or more than two genes selected from genes encoding polygammaglutamic acid synthetase complex, pgsB, pgsC and pgsA; and a gene encoding a spike antigen protein of SARS coronavirus or a nucleocapsid antigen protein, wherein the spike antigen protein is SARS SA, SARS SB, SARS SC or SARS SBC; the nucleocapsid antigen is SARS NA, SARS NB or SARS N; and the expression vector is pHCE2LB:pgsA-SARS SA, pHCE2LB:pgsA-SARS SC or pHCE2LB:pgsA-SARS SBC. The transformed microorganism is produced by transforming with the cell surface expression vector of SARS virus antigen, wherein the microorganism is selected from Escherichia coli, Salmonella typhi, Salmonella typhimurium, Vibrio cholera, Mycobacterium bovis, Shigella sp., Bacillus sp., lactic acid bacteria, Staphylococcus sp., Listeria monocytogenes and Streptococcus sp.

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